ENGLISH

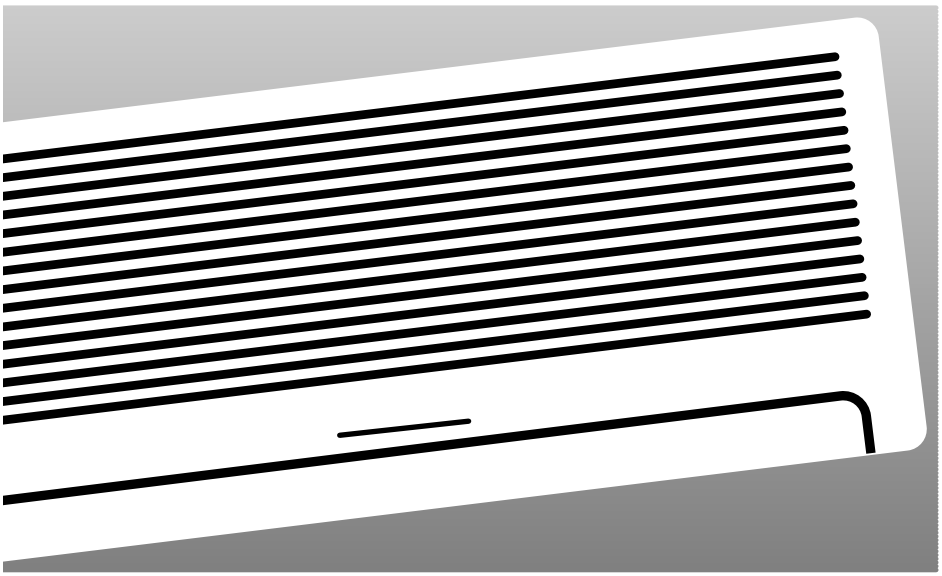
OWNER'S INSTRUCTIONS & INSTALLATION MANUAL

MANUAL DE INSTRUCCIONES & MANUAL DE INSTALACIÓN

MANUEL D'UTILISATION & MANUEL D'INSTALLATION

Indoor Unit	Outdoor Unit
AM18A1C09	UM18A1C2
AM26A1C13	UM26A1C2
AM27A1C13 AM27A1C07	UM27A1C3

MULTI-SPLIT TYPE ROOM AIR CONDITIONER (Cool)
ACONDICIONADOR DE AIRE DOMÉSTICO SISTEMA MULTI SPLIT (Refrigeración)
CLIMATISEUR DE TYPE MULTIPLE (Refroidissement)



ⒺⓈⒻ DB68-01957A(1)

Safety Precautions

The following safety precautions must be taken when using your air conditioner.

1 *Make sure that the indoor unit is correctly ventilated at all times; do NOT place clothing or other materials over it.*

2 *NEVER spill liquid of any kind into the indoor unit. Should this happen, switch off the breaker used for your air conditioner and contact your installation specialist.*

3 *Do NOT insert anything between the air flow blades, as the inner fan may be damaged and you may be hurt. Keep children away from the indoor unit.*

4 *Do NOT place any obstacles in front of the outdoor unit.*

5 *If the remote control will not be used for a long time, remove the batteries.*

6 *Users of this product are cautioned not to attempt repair of this product at their own discretion. Instead, they are requested to directly contact a designated service center or the outlet at which the product was purchased.*

7 *If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.*

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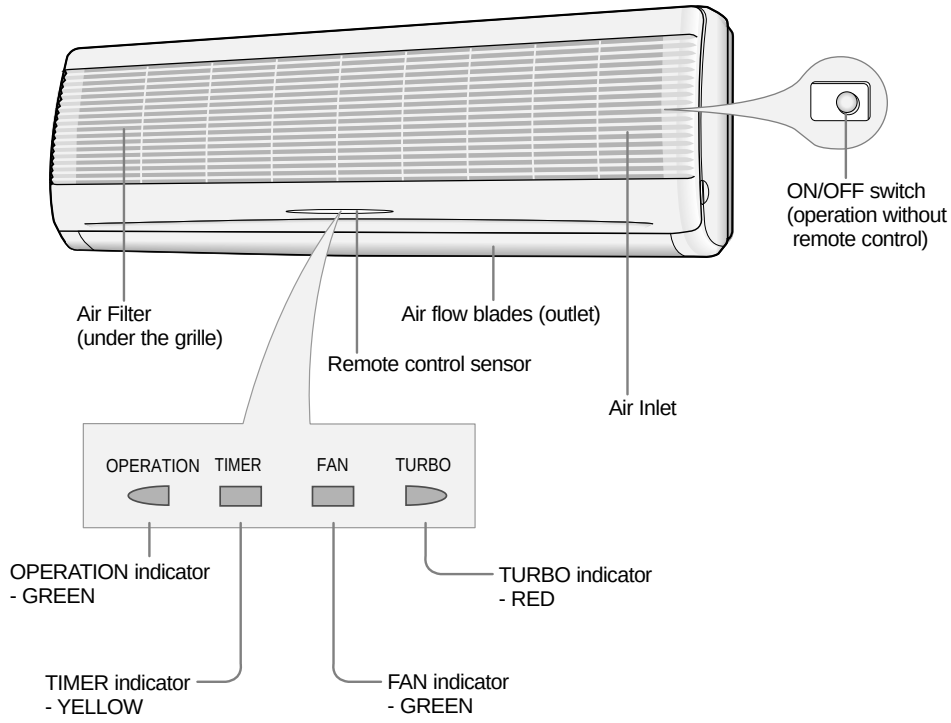
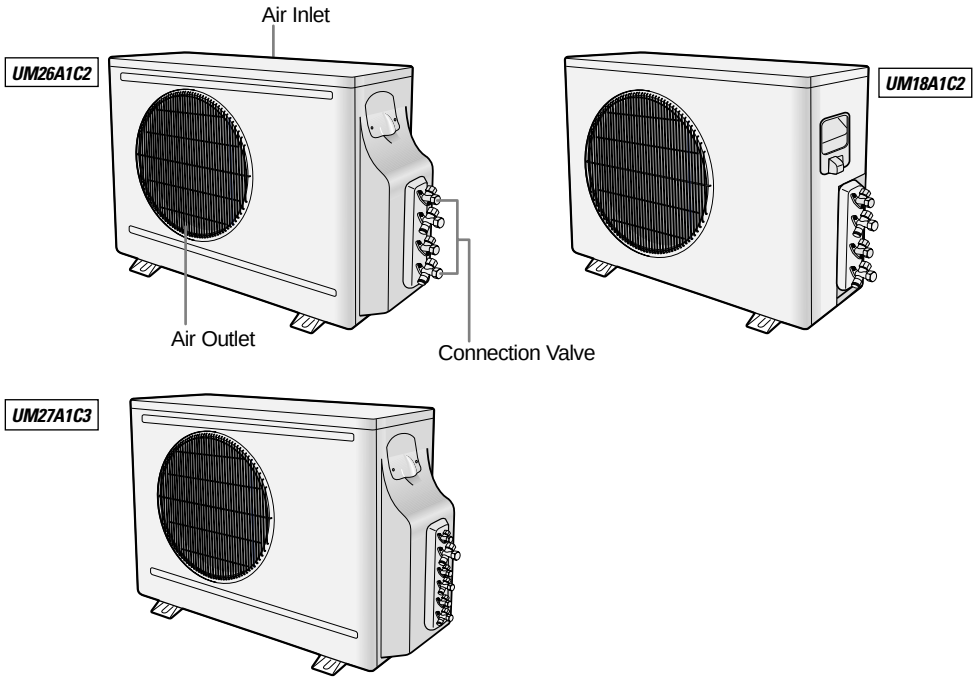
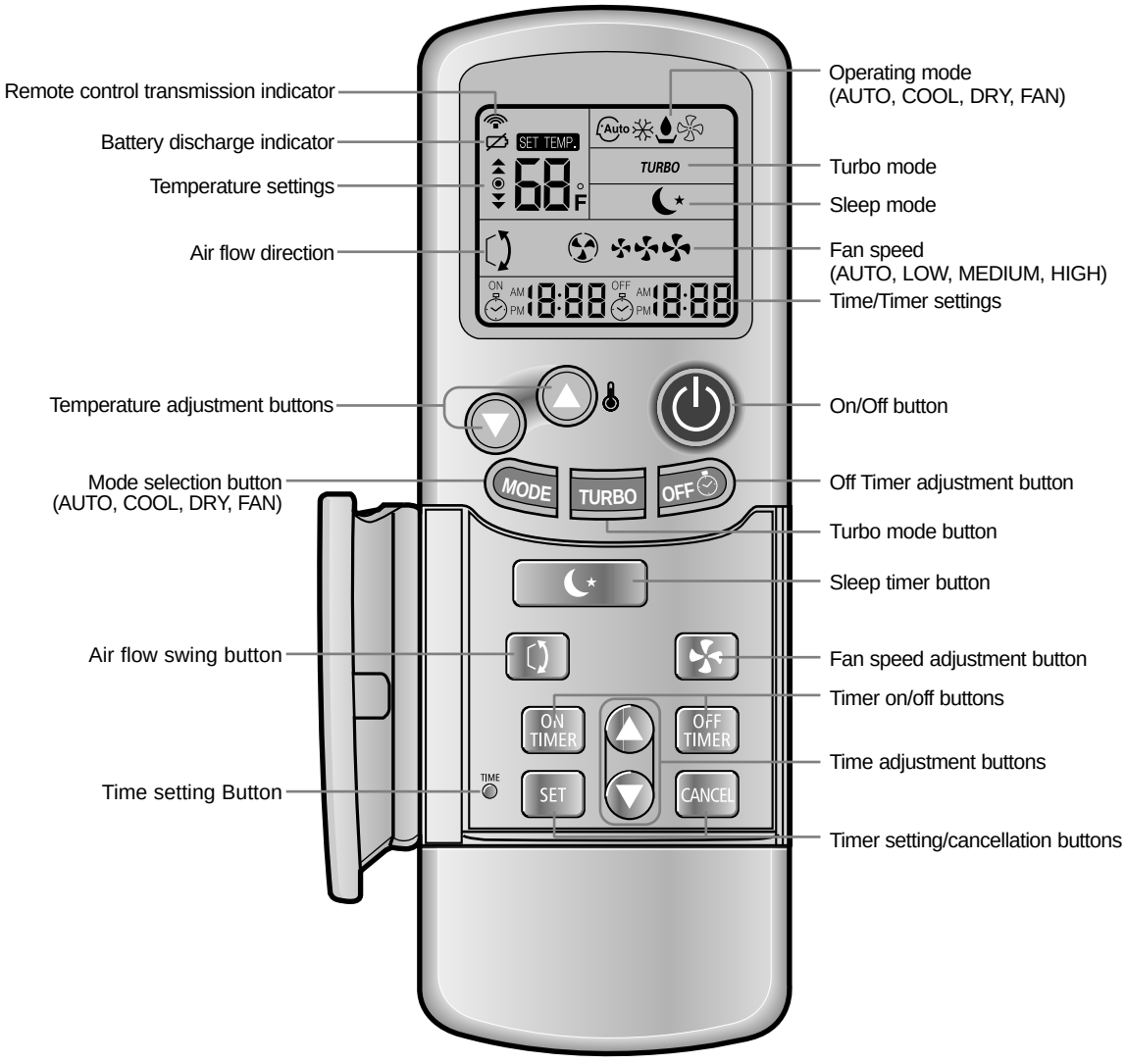
View of the Indoor Unit



View of the Outdoor Unit



Remote control - Buttons and Display



Getting Started

You have just purchased a multi-split type room air conditioner and it has been installed by your installation specialist.

Your Owner's Instructions contain much valuable information on using your air conditioner. Please take the time to read them as they will help you take full advantage of the unit's features.

The booklet is organized as follows.

- ***The following figures are shown on pages 4 and 5:***
  - ***Indoor and outdoor units***
  - ***Remote control (buttons and display)***
    They will help you find the buttons and understand the symbols displayed.

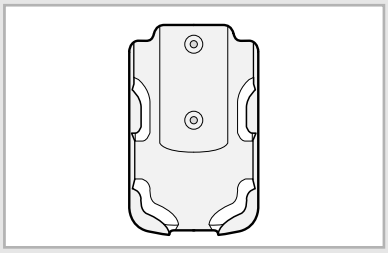
- ***In the main part of the document, you will find a series of step-by-step procedures for each function available.***

The illustrations in the step-by-step procedures use three different symbols:

PRESS	**PUSH**	**HOLD DOWN**

Installing the Remote Control Holder on the Wall

The remote control is supplied with a plastic holder that can be fitted to the wall to hold the remote control when you are not using it. To attach the holder to the wall, proceed as follows.



1 With a pencil, mark the positions of the two holes on the wall where the holder is to be installed.

2 Drill the two holes and insert plugs as required for the type of wall on which the holder is being installed.

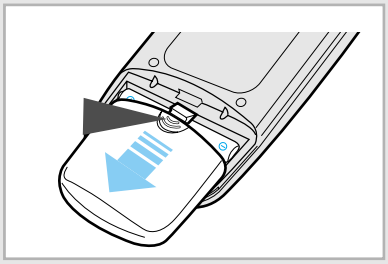
3 Screw the holder into position.

Result: You can now slide the remote control in and out of the holder as required.

Inserting the Remote Control Batteries

You must insert or replace the remote control batteries when:

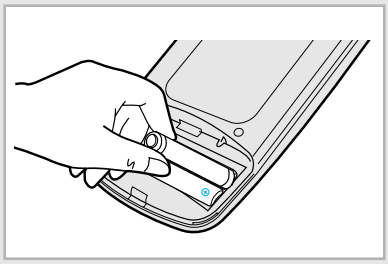
- ***You purchase the air conditioner***
- ***The remote control does not work correctly***



Note ***Use two LR03 $1\frac{1}{2}$ V batteries. Do not use old batteries or different kinds of batteries together. Batteries may be completely discharged after 12 months, even if they have not actually been used.***

1 Slide the remote control out of its holder.

2 Push the battery cover on the rear of the remote control with your thumb in the direction of the arrow and remove it.



3 Insert the two batteries, taking care to respect the polarities:
- \+ on the battery with + on the remote control
- \- on the battery with - on the remote control

4 Close the cover by sliding it back until it clicks into place.

Setting the Time

Your air conditioner contains a clock used to start and stop the unit automatically at a given time.

You must set the time when you:

- ***Purchase the air conditioner***
- ***Replace the batteries***

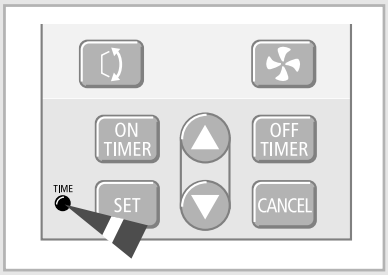
Note ***Be sure to reset the time when you change clocks from standard todaylight savings time and vice versa.***

Setting the Time for the First Time

1 Insert the batteries.

- Push the battery cover on the rear of the remote control with your thumb and remove it.

Result: The clock starts.

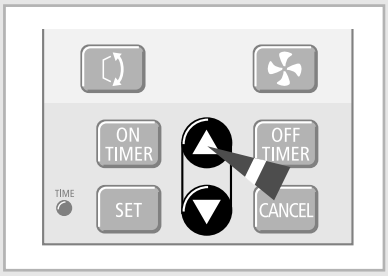


2 Using a small pointed tool (ball-point pen for example), Press the TIME button.

Result: The AM indication flashes.

3 To set the current time, press the ▲ or ▼ buttons under the cover on the remote control.

To...	Then...
Increase the time in one-minute intervals	Press the (▲)button.
Increase the time in ten-minute intervals	Hold down the (▲)button.
Decrease the time in one-minute intervals	Press the (▼)button.
Decrease the time in ten-minute intervals	Hold down the (▼)button.



Result: AM or PM is displayed to indicate whether the setting corresponds to a time before or after midday.

4 When you are satisfied with your setting, confirm the time. To do so: using a small pointed tool (ball-point pen for example), press the TIME button.

Result:
- The AM or PM indication stops flashing.
- The clock starts.

Resetting the Time

If you have already set the time but wish to change it, proceed as follow.

1 Using a small pointed tool (ball-point pen for example), press the TIME button under the remote control flap.

Result: The AM or PM indication flashes.

2 Set the time, following the instructions in Step **3** in the procedure above.

3 When you are satisfied with your setting, confirm the time. To do so, press the TIME button, using a small pointed tool (ball-point pen for example).

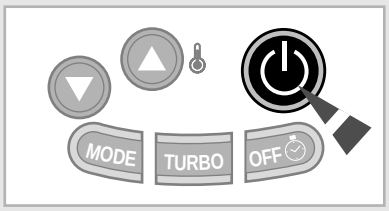
Result:
- The AM or PM indication stops flashing.
- The clock starts.

Selecting the Automatic Operating Mode

You can start the air conditioner in Automatic mode from your remote control. In the Automatic mode, the standard temperature and the optimum fan speed is selected automatically. You can adjust the standard temperature but not the fan speed.

1 If necessary, press the (On/Off) button.

Result: ◆ The OPERATION indicator on the indoor unit comes on.
◆ The air conditioner starts up in the mode selected when the unit was last used.
◆ The indoor unit beeps.

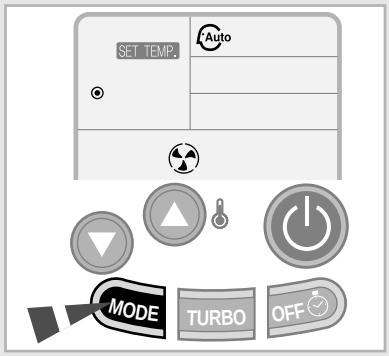


IMPORTANT The air conditioner is fitted with a protection mechanism to prevent the unit from being damaged when it is started immediately after being:
◆ Plugged in
◆ Stopped
It will start up normally after a three-minute.

2 If the Auto indication is not displayed at the top of the remote control, press the MODE button on the remote control one or more times until it appears.

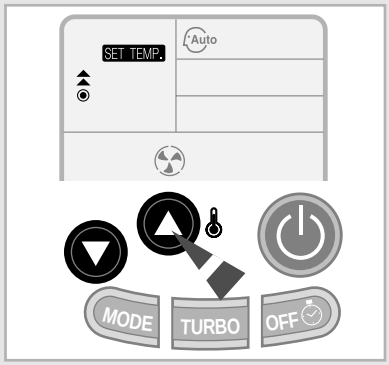
Result: ◆ The indoor unit beeps each time you press MODE.
◆ The air conditioner starts up in AUTO mode.

Note You can change modes at any time.



3 To adjust the standard temperature (The air conditioner automatically set the standard temperature by the current room temperature.), press the or buttons one or more times.

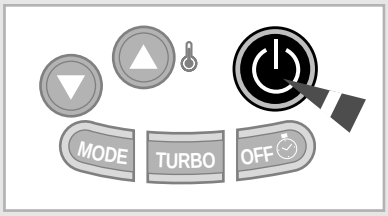
SET TEMP.	SET TEMP.	-	SET TEMP.	SET TEMP.
-2°C/-4°F	-1°C/-2°F	Standard temperature	+1°C/2°F	+2°C/4°F
( )	( )	( )	( )	( )
< When you feel hot >			< When you feel chilly >	



Cooling Your Room

You must select the Cool mode if you wish to adjust the:

- ***Cooling temperature***
- ***Fan speed when cooling***

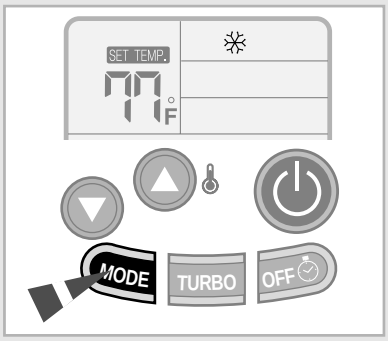


1 If necessary, press the (On/Off) button.

Result:
- The OPERATION indicator on the indoor unit comes on.
- The air conditioner starts up in the mode selected when the unit was last used.
- The indoor unit beeps.

IMPORTANT The air conditioner is fitted with a protection mechanism to prevent the unit from being damaged when it is started immediately after being:
- Plugged in
- Stopped

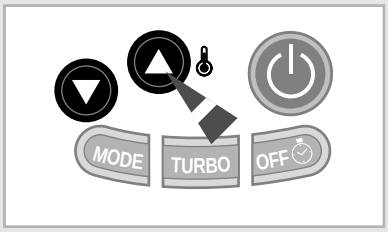
It will start up normally after a three-minute.



2 If the ❄ indication is not displayed at the top of the remote control, press the MODE button on the remote control one or more times until it appears.

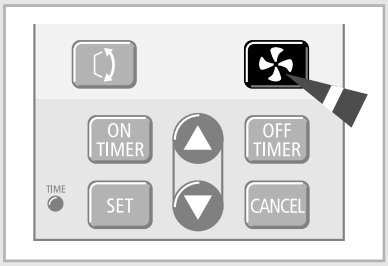
Result:
- The indoor unit beeps each time you press MODE.
- The air conditioner starts up in Cool mode.

Note You can change modes at any time.



3 To adjust the temperature, press the ▼ or ▲ buttons one or more times until the required temperature is displayed.
Possible temperatures are between 18°C(65°F) and 30°C(86°F) inclusive.

Result:
- Each time you press ▼ or ▲:
  - The temperature is adjusted by 1°C(1°F)
  - The indoor unit beeps
- The air conditioner starts cooling, provided that the room temperature is higher than the selected temperature; the fan will, however, operate.



4 Select the fan speed by pressing the button one or more times until the required setting is displayed:

- Low
- Medium
- High
- Automatic

Result: Each time you press , the indoor unit beeps.

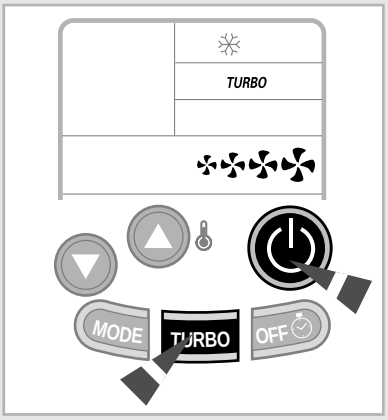
5 To control the direction of the air flow, refer to page 14.

Changing the Room Temperature Quickly

The Turbo cooling function is used to cool your room as quickly as possible.

Example: ***You have just come home and find that the room is very hot. You wish to cool it down as quickly as possible.***

The Turbo function operates for 30 minutes with the maximum settings before returning automatically to the mode and temperature previously selected.



1 If necessary, press the (On/Off) button.
Result:
- The OPERATION indicator on the indoor unit comes on.
- The air conditioner starts up in the mode selected when the unit was last used.
- The indoor unit beeps.

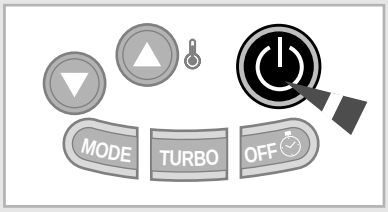
2 Press the TURBO button.
Result:
- The temperature and fan settings are adjusted automatically.
- The TURBO indicator on the indoor unit lights up.
- The air conditioner cool the room as quickly as possible.
- After 30 minutes, the air conditioner is reset automatically to the previous mode, temperature and fan settings.
  but, if you press the TURBO button in or mode that is changed with Auto mode automatically.

3 If you wish to stop the Turbo function before the end of the 30-minute period, press the TURBO button again.
Result: The air conditioner is reset automatically to the previous mode, temperature and fan settings.
but, if you press the TURBO button in or mode that is changed with Auto mode automatically.

4 To control the direction of the air flow, refer to page 14.

Removing Excess Humidity

If the atmosphere in your room is very humid or damp, you can remove excess humidity without lowering the room temperature too much.

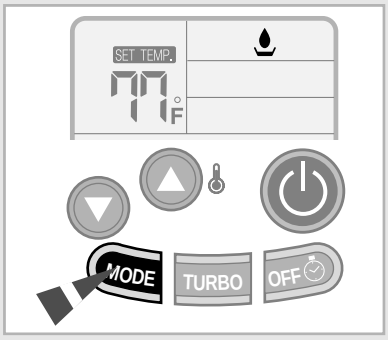


1 If necessary, press the (On/Off) button.

Result:
- The OPERATION indicator on the indoor unit comes on.
- The air conditioner starts up in the mode selected when the unit was last used.
- The indoor unit beeps.

IMPORTANT The air conditioner is fitted with a protection mechanism to prevent the unit from being damaged when it is started immediately after being:
- Plugged in
- Stopped

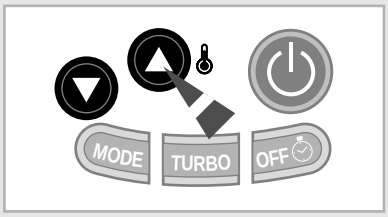
It will start up normally after a three-minute.



2 If the indication is not displayed at the top of the remote control, press the MODE button on the remote control one or more times until it appears.

Result:
- The indoor unit beeps each time you press MODE.
- The air conditioner starts up in Dry mode.

Note You can change modes at any time.



3 To adjust the temperature, press the or buttons one or more times until the required temperature is displayed.
Possible temperatures are between 18°C(65°F) and 30°C(86°F) inclusive.

Result:
- Each time you press or :
  - The temperature is adjusted by 1°C(1°F)
  - The indoor unit beeps
- The air conditioner starts removing the excess humidity; the quantity of air is adjusted automatically.

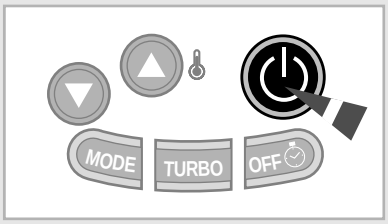
4 To control the direction of the air flow, refer to page 14.

Airing Your Room

If the atmosphere in your room is stale, you can air the room using the Fan feature.

1 If necessary, press the (On/Off) button.

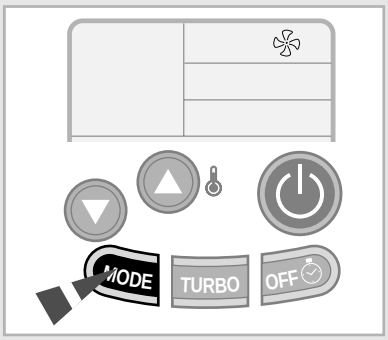
Result:
- The OPERATION indicator on the indoor unit comes on.
- The air conditioner starts up in the mode selected when the unit was last used.
- The indoor unit beeps.



2 If the indication is not displayed at the top of the remote control, press the MODE button on the remote control one or more times until it appears.

Result:
- The indoor unit beeps each time you press MODE.
- The FAN indicator on the indoor unit lights up.
- The air conditioner starts up in Fan mode.
- The temperature is set automatically.

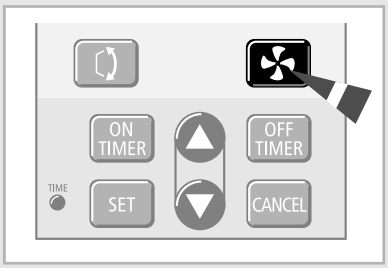
Note: You can change modes at any time.



3 Select the fan speed by pressing the button one or more times until the required setting is displayed:

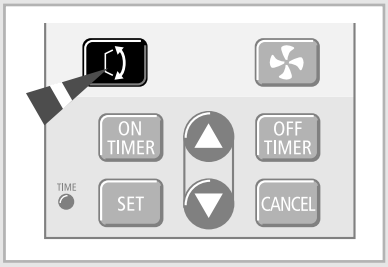
- Low
- Medium
- High

Result: Each time you press , the indoor unit beeps.



4 To control the direction of the air flow, refer to page 14.

Adjusting the Air Flow Direction Vertically



Depending on the position of the indoor unit on the wall of your room, you can adjust the position of the outer air flow blade on the bottom of the unit, thus increasing the efficiency of the air conditioner.

1 Press the button under the remote control flap one or more times as required.
Result: The outer blade is adjusted vertically.

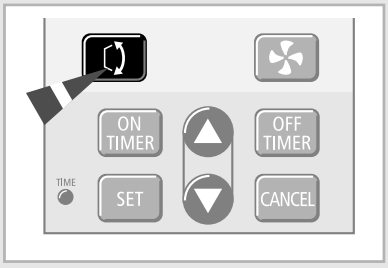
RECOMMENDATION	**When...**	**Adjust the blade to face...**
	Cooling	Upwards.

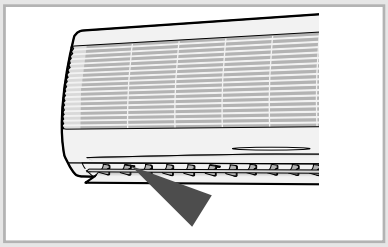
2 If you want the blade to move up and down automatically when the air conditioner is operating, press the button.
Result: The blade move up and down, around the base position set.

3 To stop the blade moving up and down, press the button again.

Note	***If you switch the air conditioner...***	***Then the blade is...***
	Off	***Closed completely.***
	On again	***Reset to the position that you previously selected.***

Adjusting the Air Flow Direction Horizontally





There are two sets of inner air flow blades. Just as the outer air flow blade can be adjusted vertically, the inner blades can be adjusted horizontally.

1 Open the air flow blade along the bottom of the indoor unit, by pressing the button.

2 To stop the blade moving up and down, press the button again.

3 Adjust each set of inner blades to the required position, by pushing or pulling them sideways.

Switching the Unit On and Off Automatically (On/Off Timer)

You can set the timer to switch the air conditioner on and/or off automatically at given times.

Example: ***You wish to start cooling your room before you return from work; you decide to:***

- ***Switch the air conditioner on at 5:30 p.m.***
- ***Switch it off at 11:30 p.m.***

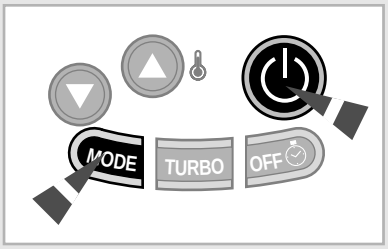
You can set:

- ***The switch-on time only***
- ***The switch-off time only***
- ***Both the switch-on and switch-off times***

IMPORTANT ***Check that the current time is correct before setting the timer; if it is not correct, refer to page 8 for details on how to set it.***

1 If necessary, press the (On/Off) button.

2 Select the required mode by pressing the MODE button on the remote control one or more times until the appropriate indication appears (in the above example, ✲).



3 Press the ON TIMER button under the cover on the remote control.

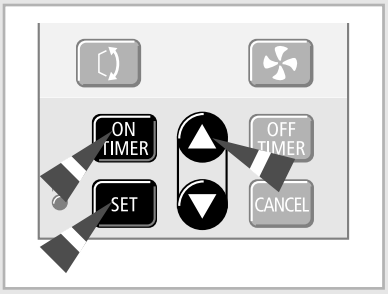
Result: ◆ The ON indication flashes.
◆ The current preset time is displayed.

Note If you do not press a button within a few seconds, the Timer function is cancelled and you must press the ON TIMER button again.

4 To set the switch-on time, press the ▲ or ▼ buttons.

To...	**Then...**
Increase the time in ten-minute intervals	Press the ▲ button.
Increase the time in one-hour intervals	Hold down the ▲ button.
Decrease the time in ten-minute intervals	Press the ▼ button.
Decrease the time in one-hour intervals	Hold down the ▼ button.

Result: AM or PM is displayed to indicate whether the setting corresponds to a time before or after midday.



5 When you are satisfied with the switch-on time, press SET.

Result: ◆ The indoor unit beeps.
◆ The TIMER indicator on the indoor unit lights up yellow.

Note If not necessary to operate the air conditioner until the set up time for starting, press (On/Off) button off.
The air conditioner will start up automatically when the switch-on time is reached.

6 To set the switch-off time, press the OFF TIMER button.

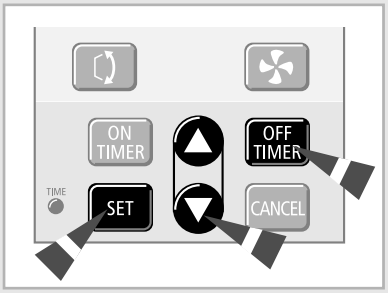
Result: ◆ The OFF indication flashes.
◆ The current preset time is displayed.

7 Set the switch-off time, following the instructions in Step 4.

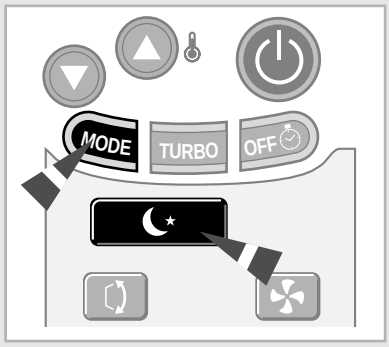
8 When you are satisfied with the switch-off time, press SET.

Result: ◆ The indoor unit beeps.
◆ The TIMER indicator on the indoor unit lights up yellow.
◆ The air conditioner will switch off automatically when the switch-off time is reached.

Note ***If you wish to cancel the timer, refer to page 17.***



Setting the Sleep Timer



The Sleep Timer can be used when you are cooling your room to switch the air conditioner off automatically after a period of six hours.

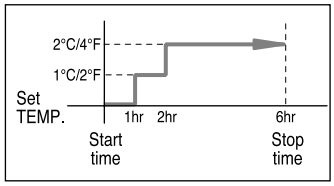
Note ***If you wish to switch the unit off at a specific time, refer to page 15.***

1 If the ✲ indication is not displayed at the top of the remote control, press the MODE button on the remote control one or more times until it appears.

2 Press the ☾★ button .

Result:
- The indoor unit beeps.
- The ☾★ indication is displayed.
- The air conditioner will be controlled as indicated in the illustrations below.

Cooling — The temperature is increased by 1°C(2°F) every hour. When it has been increased by 2°C(4°F) (after two hours), the temperature is maintained for four hours.



Setting the Quick Timer

The Quick Timer enables you to set the air conditioner to switch off automatically after a given period of time, by pressing one single button. The unit can be switched off automatically after 30 minutes, one hour, two hours, three hours or five hours.

Note ***If you wish to switch the unit off at a specific time, refer to page 15.***

1 If necessary, switch the air conditioner on and select the required mode.

2 Press OFF one or more times until the correct period is displayed:

0:30 → 1:00 → 2:00 → 3:00 → 5:00 → AM 10:30

Result:
- The TIMER indicator lights up yellow.
- The air conditioner will switch off automatically when the counter displayed on the remote control reaches 0:00 .

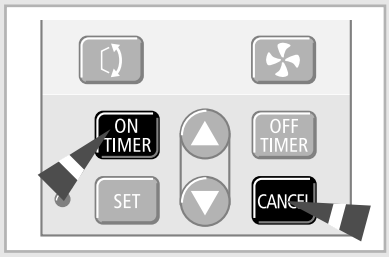
Cancelling the On/Off Timer

If you no longer wish to use the On/Off Timer that you have set, you can cancel it at any time.

1 **To cancel the...** **Then press...**

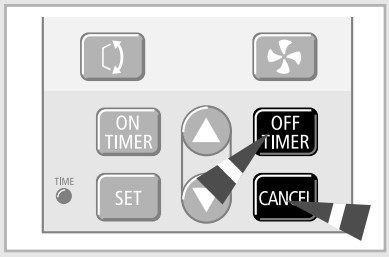
Switch-on timer — ON TIMER.
Result: The ON indication flashes.

Switch-off timer — OFF TIMER.
Result: The OFF indication flashes.



2 Press the CANCEL button.

Result:
- The indoor unit beeps.
- The TIMER indicator on the indoor unit switches off if no other timer is currently set.
- The air conditioner operates normally.

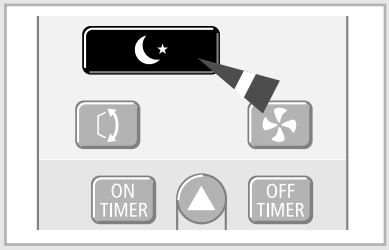


Cancelling the Sleep Timer

If you no longer wish to use the Sleep Timer that you have set, you can cancel it at any time.

Press the button.

Result:
- The indoor unit beeps.
- The indication is no longer displayed.
- The air conditioner operates normally.

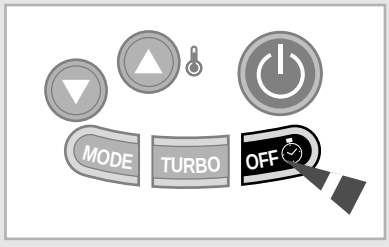


Cancelling the Quick Timer

If you no longer wish to use the Quick Timer that you have set, you can cancel it at any time.

Press the button one or more times until the current time indication is displayed.

Result:
- The indoor unit beeps each time you press .
- The air conditioner operates normally.



Operating Recommendation

Here is a recommendation that you should follow when using your air conditioner.

Topic	Recommendation
Power failure	If a power failure occurs when the air conditioner is operating, the unit is switched off. When the power returns, you must press (On/Off) to restart it.

Temperature and Humidity Ranges

The following table indicates the temperature and humidity ranges within which the air conditioner can be used.

If the air conditioner is used at...	Then...
High temperatures	The automatic protection feature may be triggered and the air conditioner stopped.
Low temperatures	A water leakage or some other malfunction may happen if the heat exchanger freezes.
High humidity levels	Water may condense on and drip from the surface of the indoor unit if it is used for long periods.

Mode	Outdoor Temperature	Indoor Temperature	Indoor Humidity
Cooling	21°C to 43°C approx. 70°F to 109°F approx.	18°C to 32°C approx. 65°F to 90°F approx.	80% or less
Drying	18°C to 43°C approx. 65°F to 109°F approx.	18°C to 32°C approx. 65°F to 90°F approx.	-

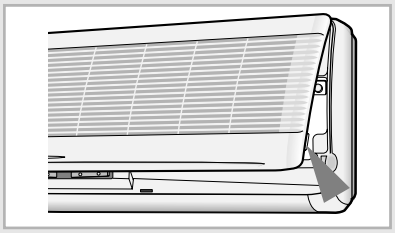
✳ ***If the cooling operation is used at over 33°C/92°F (indoor temperature) then, does not a full capacity.***

Cleaning Your Air Conditioner

To get the best possible use out of your air conditioner, you must clean it regularly to remove the dust that accumulates on the air filter.

IMPORTANT ***Before cleaning your air conditioner, ensure that you have switched off the breaker used for the unit.***

1 Open the front grille by pulling on the tabs on the lower right and left sides of the indoor unit.

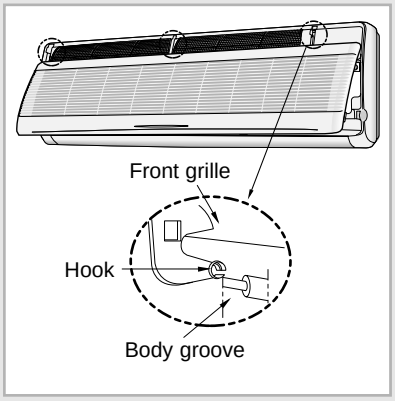


2 Lift out the bottom edge of the air filters and pull down to release them.

3 Remove all dust on the air filters with a vacuum cleaner or brush.

4 When you have finished, insert the top part of the filters into their slot and push down on the bottom edge until they click into place.

5 Clean the front panel with a damp cloth and mild detergent (do NOT use benzene, solvents or other chemicals).



Note

- ***If you have not used the air conditioner for a long period of time, set the fan going for three to four hours to dry the inside of the air conditioner thoroughly.***
- ***The removal of the front grille facilitates your cleaning the air conditioner. After opening the front grille, lift up to the max, push slightly to the left, and pull down to release them and vice versa.***

Solving Common Problems

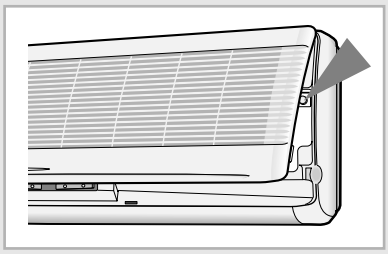
Before contacting the after-sales service, perform the following simple checks. They may save you the time and expense of an unnecessary call.

Problem	Explanation/Solution
The air conditioner does not operate at all	◆ Check that the breaker used for the air conditioner is switched on. ◆ Check that the OPERATION indicator on the indoor unit is on; if necessary press (On/Off) on the remote control. ◆ Check whether the TIMER indicator on the indoor unit is switched on. If so: - Wait until the switch-on time is reached and the air conditioner starts up automatically - Cancel the timer (see page 17 for further details)
The air conditioner does not operate with the remote control	◆ Check that there are no obstacles between you and the indoor unit. ◆ Check the remote control batteries. ◆ Check that you are close enough to the indoor unit (seven metres/ yards or less).
No beep is heard when you press (On/Off) on the remote control	◆ Check that you are pointing the remote control at the infrared sensor in the middle of the indoor unit. ◆ Replace the remote control batteries if necessary.
The air conditioner does not cool	◆ Check that the correct operating mode has been selected (Auto , ✲). ◆ The room temperature may be too low. ◆ Dust may be blocking the air filter guard; refer to page 19 for cleaning instructions. ◆ Check that there is no obstacle in front of the outdoor unit.
The fan speed does not change when you press the button	◆ Check that the operating mode is set to ✲ or ; in the Auto mode, the fan speed changes automatically and in the mode, it is set to AUTO.
The air flow direction does not change when you press the button	◆ Check that the air conditioner has been switched on; if necessary, press (On/Off) on the remote control.
The timer is not correctly triggered	◆ Check that you have set the clock to the right time; see page 8. ◆ Check that the timer has been programmed correctly; see page 15.
Odours are permeated in the room during air conditioning	◆ Air the room.

Operating Your Air Conditioner Without the Remote Control

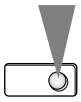
Your air conditioner can be operated directly from the indoor unit if the remote control is lost or broken.

1 Open the front grille by pulling on the tabs on the lower right and left sides of the indoor unit.



2 To switch the air conditioner on, press the ON/OFF switch on the right side of the indoor unit.

Result: ◆ The OPERATION indicator on the indoor unit comes on.
◆ The indoor unit beeps.
◆ The air conditioner starts up in the most suitable mode for the room temperature:



3 To switch the air conditioner off, press the ON/OFF switch again.

Note Even if the air conditioner has been switched on via the ON/OFF switch, operations can still be controlled using the remote control as usual.

Technical Specifications

MODEL			AM18A1C2		AM26A1C2	
			Indoor	Outdoor	Indoor	Outdoor
			AM18A1C09	UM18A1C2	AM26A1C13	UM26A1C2
Type			2 Comp + 2 Room		2 Comp + 2 Room	
Performance Ratings	Cooling capacity	Btu/h	A/B-unit : 9000		A/B-unit : 12500	
	Moisture removal	Pts/h	2.46	-	3.96	-
	Indoor Air flow	CFM	235	-	290	-
	Sound rating	dB	38	55	41	56
Electrical Data	The number of operation		1 Unit operation	2 Unit operation	1 Unit operation	2 Unit operation
	Power source	V, Hz	208-230~, 60		208-230~, 60	
	Ampacity	A	4.0	8.0	5.9	11.8
	Watts	W	860	1720	1290	2580
	Max. TD Fuse/Breaker	A	20		20	
Refrigeration Lines	Indoor unit		A-Unit	B-Unit	A-Unit	B-Unit
	Connections		Flare	Flare	Flare	Flare
	Liquid Line O.D.	in	1/4"	1/4"	1/4"	1/4"
	Suction Line O.D.	in	3/8"	3/8"	1/2"	1/2"
	Factory Pre-charge	ft	16.4	16.4	16.4	16.4
	Max. Line length	ft	49' 3"	49' 3"	49' 3"	49' 3"
	Max. Height difference	ft	9' 10"	9' 10"	9' 10"	9' 10"
Dimensions & Weight	W x H x D	in	$32\frac{5}{64}$ x $11\frac{47}{64}$ x $7\frac{11}{64}$	$30\frac{63}{64}$ x $24\frac{13}{32}$ x $12\frac{19}{32}$	$32\frac{5}{64}$ x $11\frac{47}{64}$ x $7\frac{11}{64}$	$39\frac{3}{8}$ x $31\frac{7}{64}$ x $12\frac{13}{64}$
	Shipping weight	lbs	$21\frac{1}{2}$	110	$21\frac{1}{2}$	141

✻ Standard rating conditions cooling

	Indoor		Outdoor	
	DB	WB	DB	WB
°C	26.7	19.4	35.0	23.9
°F	80	67	95	75

AM27A1C3				
Indoor		**Indoor**		**Outdoor**
AM27A1C07		AM27A1C13		UM27A1C3
2 Comp + 3 Room				
A-unit : 13000, B/C-unit : 7000				
2.46		3.96		-
210		290		-
38		41		56
1 Unit operation		2 Unit operation		3 Unit operation
208-230~, 60				
A:5.9	B(C):5.1	A+B(C):11.0	B+C:6.2	A+B+C:12.2
A:1290	B(C):1250	A+B(C):2540	B+C:1410	A+B+C:2650
20				
A-Unit		B-Unit		C-Unit
Flare		Flare		Flare
1/4"		1/4"		1/4"
1/2"		3/8"		3/8"
16.4		16.4		16.4
49' 3"		49' 3"		49' 3"
9' 10"		9' 10"		9' 10"
$32\frac{5}{64}$ x $11\frac{47}{64}$ x $7\frac{11}{64}$				$39\frac{3}{8}$ x $31\frac{7}{64}$ x $12\frac{13}{64}$
$21\frac{1}{2}$				$147\frac{60}{100}$

INSTALLATION MANUAL

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Deciding on Where to Install the Air Conditioner

When deciding on the location of the air conditioner with the owner, the following restrictions must be taken into account.

General

Do NOT install the air conditioner in a location where it will come into contact with the following elements:

- Combustible gases
- Saline air
- Machine oil
- Sulphide gas
- Special environmental conditions

If you must install the unit in such conditions, first consult your dealer.

Indoor Unit

- There must be no obstacles near the air inlet and outlet.
- Install the indoor unit on a surface that can support its weight.
- Choose a position that enables the piping and cables to be easily connected to the outdoor unit and the recommended length of 5 metres(16ft 5in) to be respected (15 metres/49ft 3in maximum).
- Leave enough clearance beneath the indoor unit to enable the filters to be removed without hindrance.
- Maintain sufficient clearance around the indoor unit, as indicated in the diagram on the page opposite.
- Make sure that the water dripping from the drain hose runs away correctly and safely.

Outdoor Unit

- The outdoor unit must NEVER be placed on its side or upside down, as the compressor lubrication oil will run into the cooling circuit and seriously damage the unit.
- Choose a location that is dry and sunny, but not exposed to direct sunlight or strong winds.
- Do not block any passageways or thoroughfares.
- Choose a location where the noise of the air conditioner when running and the discharged air do not disturb any neighbours.
- Choose a position that enables the piping and cables to be easily connected to the indoor unit and the recommended length of 5 metres(16ft 5in) to be respected (15 metres/49ft 3in maximum).
- Install the outdoor unit on a flat, stable surface that can support its weight and does not generate any unnecessary noise and vibration.
- Position the outdoor unit so that the air flow is directed towards the outside, as indicated by the arrows on the top of the unit.
- Maintain sufficient clearance around the outdoor unit, as indicated in the diagram on the page opposite.
- If the outdoor unit is installed at a height, ensure that its base is firmly fixed in position; the maximum height (“B”: indicated in the diagram on the page opposite.) is 3 metres/9ft 10in.
- Make sure that the water dripping from the drain hose runs away correctly and safely.

CAUTION

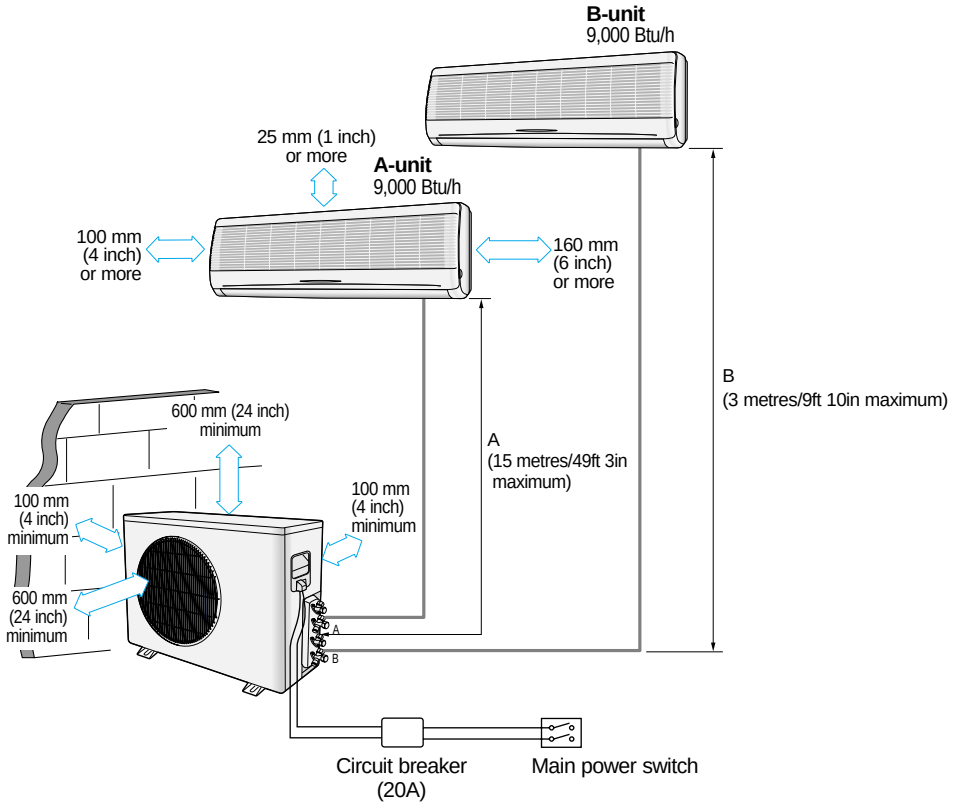
You have just purchased a split-type room air conditioner and it has been installed by your installation specialist.

Deciding on Where to Install the Air Conditioner(cont.)

◗ ***18,000Btu/h***

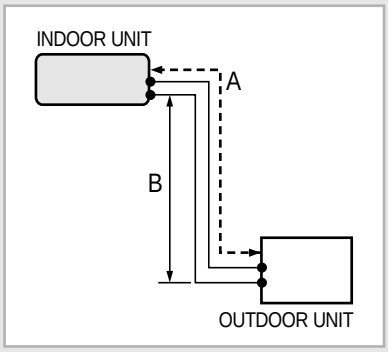
Indoor unit	Outdoor unit	Power supply Ø, V, Hz
AM18A1C09	UM18A1C2	1,208-230~,60

Respect the clearances and maximum lengths indicated in the diagram below when installing the unit.



Piping length and the height.

Unit	Pipe size		MAX. piping length A	MAX. height B
	Liquid	GAS		
A-unit	1/4"	3/8"	15 m (49ft 3in)	3 m (9ft 10in)
B-unit	1/4"	3/8"	15 m (49ft 3in)	3 m (9ft 10in)

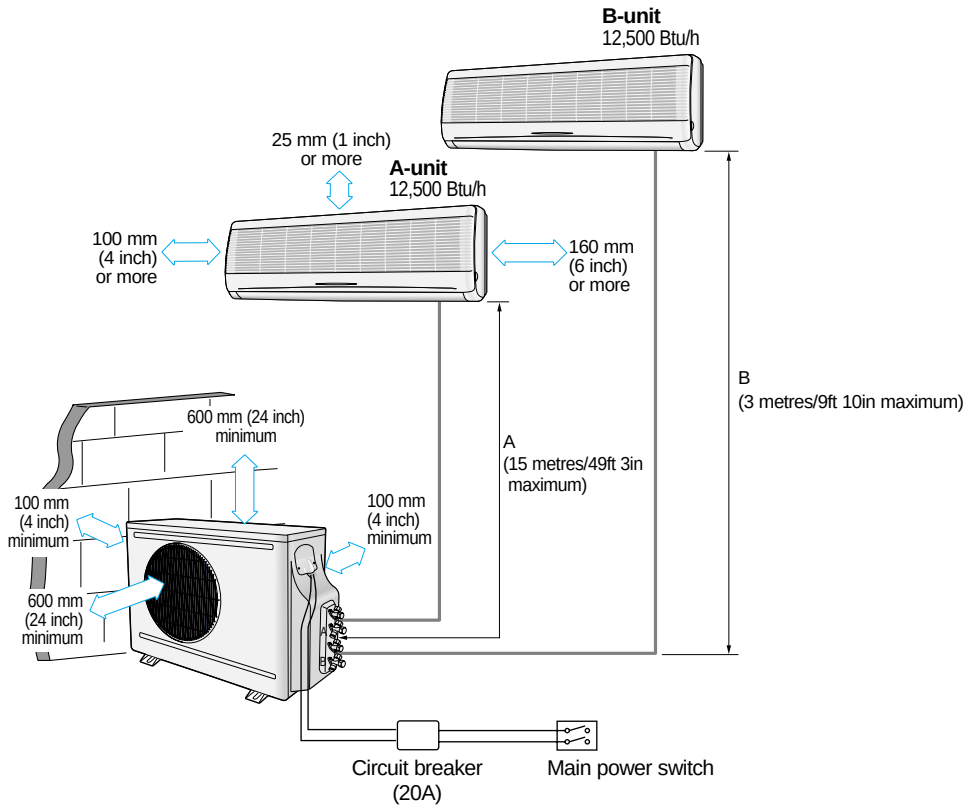


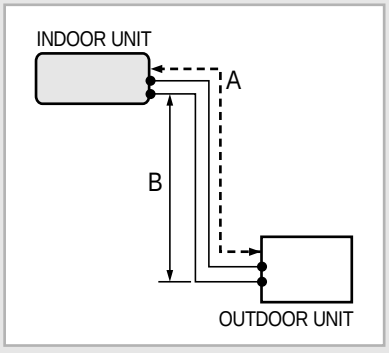
Deciding on Where to Install the Air Conditioner(cont.)

◗ ***26,000Btu/h***

Indoor unit	Outdoor unit	Power supply Ø, V, Hz
AM26A1C13	UM26A1C2	1,208-230~,60

Respect the clearances and maximum lengths indicated in the diagram below when installing the unit.





Piping length and the height.

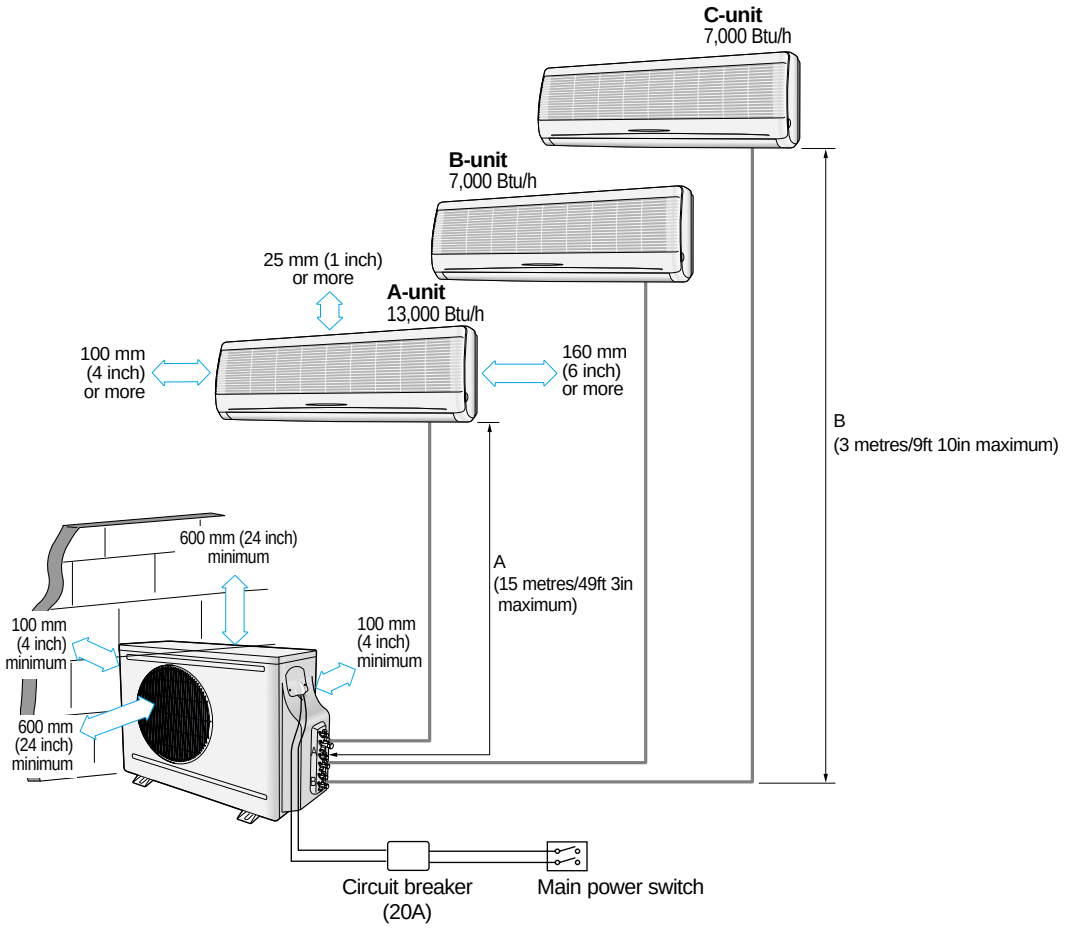
Unit	Pipe size		MAX. piping length A	MAX. height B
	Liquid	GAS		
A-unit	1/4"	1/2"	15 m (49ft 3in)	3 m (9ft 10in)
B-unit	1/4"	1/2"	15 m (49ft 3in)	3 m (9ft 10in)

Deciding on Where to Install the Air Conditioner(cont.)

◗ ***27,000Btu/h***

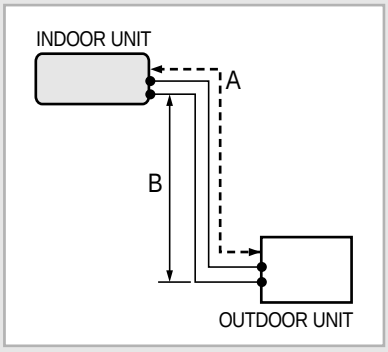
Indoor unit	Outdoor unit	Power supply Ø, V, Hz
AM27A1C13 AM27A1C07	UM27A1C3	1,208-230~,60

Respect the clearances and maximum lengths indicated in the diagram below when installing the unit.



Piping length and the height.

Unit	Pipe size		MAX. piping length A	MAX. height B
	Liquid	GAS		
A-unit	1/4"	1/2"	15 m (49ft 3in)	3 m (9ft 10in)
B-unit	1/4"	3/8"	15 m (49ft 3in)	3 m (9ft 10in)
C-unit	1/4"	3/8"	15 m (49ft 3in)	3 m (9ft 10in)



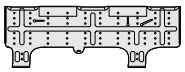
Air Conditioner and Accessories

The following accessories are supplied with the air conditioner.

➢ ***The quantities are indicated in parentheses.***

Accessories in the Indoor Unit Case

Installation Plate

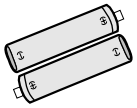


FH.M4 x 12 Tapped Screws

Remote Control

Remote Control Holder

Batteries for Remote Control



Owner's Instruction booklet and Installation manual

Accessories in the Accessories box

The following connection accessories are optional. If they are not supplied, we recommended that you had better purchase these parts from a shop like home depot before installing the air conditioner.

If these accessories are supplied, they are located in the accessory box.

Assembly Piping, Ø6.35mm by 5m (Ø1/4" x L197")

Assembly Piping, Ø9.52mm by 5m (Ø3/8" x L197")

Assembly Piping, Ø12.7mm by 5m (Ø1/2" x L197")

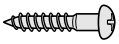
PE T3 Foam Tube Insulation

Vinyl Tape, Width 50mm (2")

Pipe Clamps A

Pipe Clamps B

M3.8 x 20 Screws for Wood



M4 x 16 Tapped Screws

Drain Hose, length 2m (79")

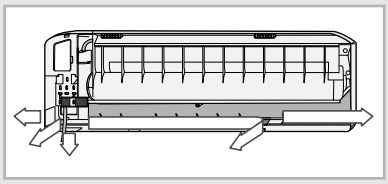
Putty 100g

Rubber Leg(4)

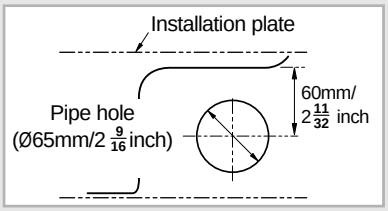
Fixing the Installation Plate

Before fixing the installation plate to a wall or window frame, you must determine the position of the 65 mm(2 9/16 inch) hole through which the cable, piping and hose pass to connect the indoor unit up to the outdoor unit. When facing the air conditioner in position on the wall, the piping and cable can be connected from the:

- ***Right***
- ***Left***
- ***Underside***
- ***Rear (right or left)***



1 Determine the position of the pipe and drain hose hole using the right figure and drill the hole with an inner diameter of 65 mm(2 9/16 inch) so that it slants slightly downwards.

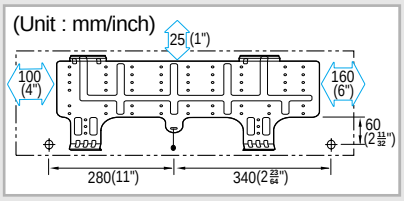


2

If you are fixing the indoor unit to a...	Then follow Steps...
Wall	**3**.
Window frame	**4** to **6**.

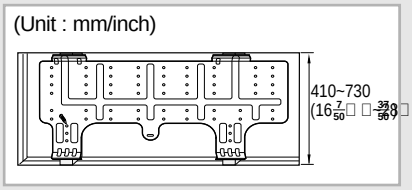
3 Fix the installation plate to the wall in a manner appropriate to the weight of the indoor unit.

➢ If you are mounting the plate on a concrete wall with anchor bolts, the anchor bolts must not project by more than 25 mm(1 inch).



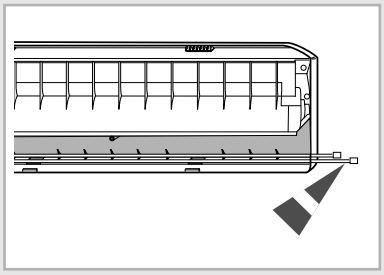
4 Determine the positions of the wooden uprights to be attached to the window frame.

5 Attach the wooden uprights to the window frame in a manner appropriate to the weight of the indoor unit.



6 Using tapped screws, attach the installation plate to the wooden uprights, as illustrated in the last figure opposite.

Purging the Unit



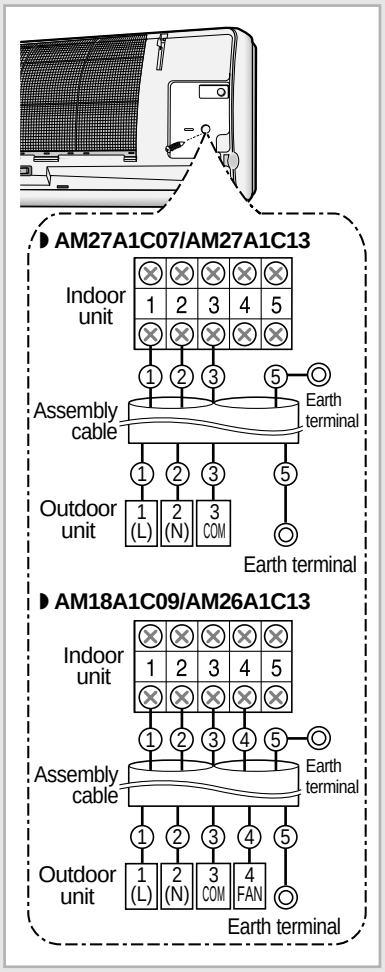
On delivery, the indoor unit is loaded with an inert gas. All this gas must therefore be purged before connecting the assembly piping. To purge the inert gas, proceed as follows.

Unscrew the caps at the end of each pipe.

Result: All inert gas escapes from the indoor unit.

➢ ***To prevent dirt or foreign objects from getting into the pipes during installation, do NOT remove the caps completely until you are ready to connect the piping.***

Connecting the Assembly Cable



The indoor unit is powered from the outdoor unit via the assembly cable. If the outdoor unit is more than five metres away from the indoor unit, the cable must first be extended to a maximum of ten metres.

1 Extend the assembly cable if necessary.

2 Open the front grille by pulling on the tabs on the lower right and left sides of the indoor unit.

3 Remove the screw securing the connector cover.

4 Pass the assembly cable through the rear of the indoor unit and connect the assembly cable to terminals 1 to 5.

➢ Each wire is labelled with the corresponding terminal number.

5 Pass the other end of the cable through the 65 mm(2 $\frac{9}{16}$ inch) hole in the wall.

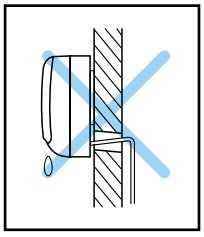
6 Replace the connector cover, carefully tightening the screw.

7 Close the front grille.

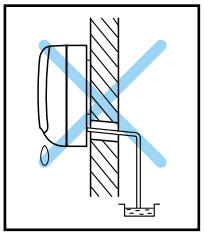
8 For further details on how to plug the other end of the assembly cable into the outdoor unit, refer to page 36.

Installing and Connecting the Indoor Unit Drain Hose

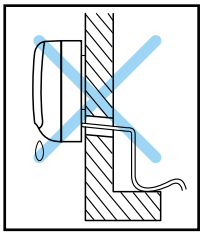
Care must be taken when installing the drain hose for the indoor unit to ensure that any condensation water is correctly drained outside. When passing the drain hose through the 65 mm(2 $\frac{9}{16}$ inch) hole drilled in the wall, check that none of the following situations occur.



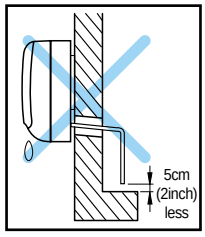
The hose must NOT slope upwards.



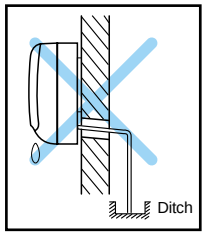
The end of the drain hose must NOT be placed in water.



Do NOT bend the hose in different directions.



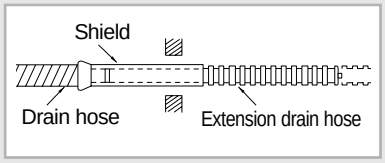
Keep a clearance of at least 5 cm/2 inch between the end of the hose and the ground.



Do NOT place the end of the drain hose in a hollow.

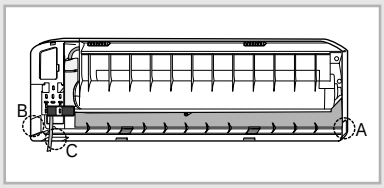
To install the drain hose, proceed as follows.

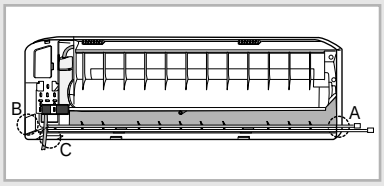
1	If necessary, connect the 2 metre (79 inch) extension to the drain hose.
2	If you are using the extension, insulate the inside part of the extension drain hose with a shield.
3	Pass the drain hose under the refrigerant piping, taking care to keep the drain hose tight.
4	Pass the drain hose through the hole in the wall, making sure that it is sloping downwards, as shown in the illustrations above.



➢ ***The hose will be fixed permanently into position once the whole installation has been tested for gas leaks; refer to page 42 for further details.***

Installing and Connecting the Indoor Unit Assembly Piping





There are two refrigerant pipes of different diameters:

- ***A smaller one for the liquid refrigerant***
- ***A larger one for the gas refrigerant***

A short length of piping is already fitted to the air conditioner. You must extend this piping using assembly piping (optionally supplied).

The connection procedure for the refrigerant piping varies according to the exit position of the piping from the indoor unit, as seen when facing the air conditioner in position on the wall:

- ***Right (A)***
- ***Left (B)***
- ***Underside (C)***
- ***Rear***

1 With a knife, cut out the appropriate knock-out piece on the rear of the indoor unit (unless you are connecting directly from the rear).

2 Smooth the cut edges.

3 Remove the protection caps on the pipes and connect the assembly piping to each pipe, tightening the nuts, first manually and then with a wrench, applying the following torque.

Pipe	Outer Diameter	Torque (kg•cm)
Liquid refrigerant	6.35 mm (1/4")	160 ($11\frac{3}{5}$ ft•lb)
Gas refrigerant	9.52 mm (3/8")	300 ($21\frac{3}{4}$ ft•lb)
Gas refrigerant	12.70 mm (1/2")	500 ($36\frac{2}{5}$ ft•lb)

➢ If the piping must be shortened or extended, refer to page 35.

4 Cut off any excess foam insulation.

5 If necessary, bend the pipe round, along the bottom of the indoor unit and out through the appropriate hole, taking care to ensure that:
- The piping does not jut out from the rear of the indoor unit
- The bending radius is 100 mm (4 inch) or more

6 Pass the piping through the hole in the wall.

7 For further details on how to connect up to the outdoor unit and purge the circuit, refer to page 41.

➢ ***The piping will be insulated and fixed permanently into position once the whole installation has been tested for gas leaks; refer to page 42 for further details.***

Cutting/Extending the Piping

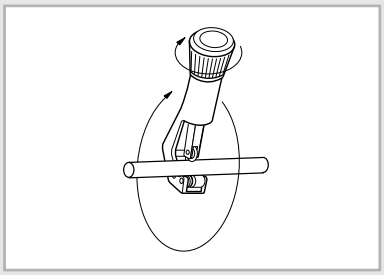
Five metres of piping is supplied with the air conditioner(Optional). This length can if necessary be:

- ***Extended to a maximum of ten metres***
- ***Shortened as required***

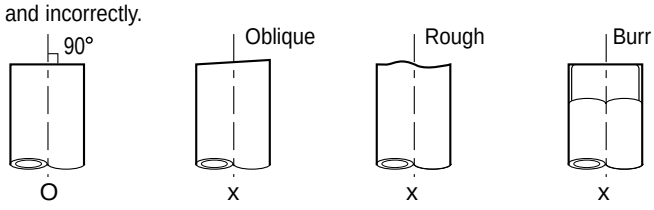
☛ ***If more than five metres of piping is required:***

- ***The assembly cable must also be extended***
- ***Refrigerant must be added to the circuit by an approved installer; otherwise, the indoor unit may freeze***

1 Make sure that you have the required tools available (pipe cutter, reamer, flaring tool and pipe holder).

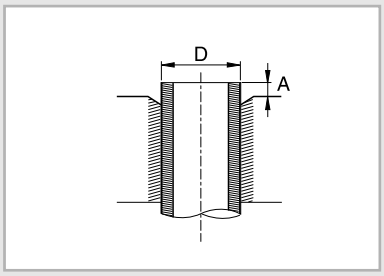


2 If you wish to shorten the piping, cut it using a pipe cutter, taking care to ensure that the cut edge remains at a 90° angle with the side of the pipe, and referring to the illustrations below for examples of edges cut correctly and incorrectly.



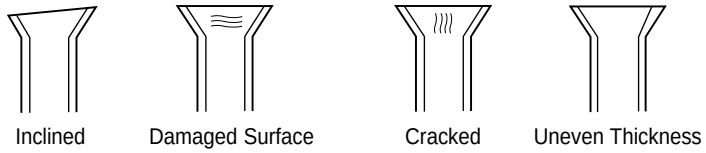
3 To prevent any gas from leaking out, remove all burrs at the cut end of the pipe, using a reamer.

4 Slide a flare nut on to the pipe and modify the flare.

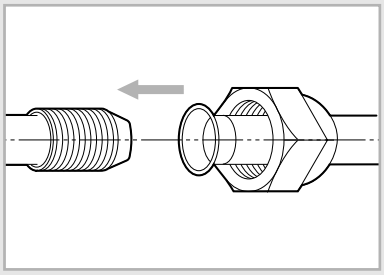


Pipe	Outer Diameter (D)	Depth (A)
Liquid refrigerant	6.35 mm (1/4")	1.3 mm (5/100")
Gas refrigerant	9.52 mm (3/8")	1.8 mm (7/100")
Gas refrigerant	12.70 mm (1/2")	2.0 mm (8/100")

5 Check that the flaring is correct, referring to the illustrations below for examples of incorrect flaring.



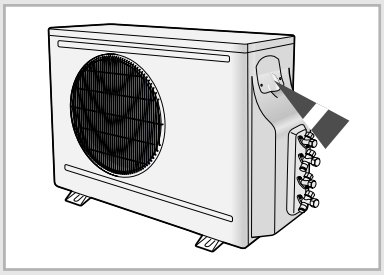
6 Align the pipes to be connected and tighten the flare nuts first manually and then with a wrench, applying the following torque.



Pipe	Outer Diameter	Torque (kg•cm)
Liquid refrigerant	6.35 mm (1/4")	160 (11 3/5 ft•lb)
Gas refrigerant	9.52 mm (3/8")	300 (21 3/4 ft•lb)
Gas refrigerant	12.70 mm (1/2")	500 (36 2/5 ft•lb)

7 For further details on how to connect up to the outdoor unit and purge the circuit, refer to page 41.

Connecting the Cables to the Outdoor Unit



Two electric cables must be connected to the outdoor unit:

- ***The assembly cable connecting the indoor unit to the outdoor unit.***
- ***The power cable connecting the auxiliary circuit breaker to the outdoor unit.***

1 Remove the terminal board cover on the side of the outdoor unit.

2 Connect the assembly cable to terminals 1 to 5 and connect the power cable to the terminals A to B.

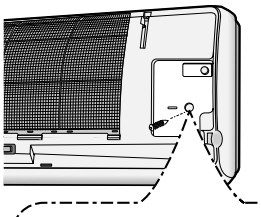
➢ Each wire is labelled with the corresponding terminal number.
➢ Ensure the wire number of the indoor unit and the terminal number of the outdoor unit.

3 Connect the earth wires to the earth terminals.

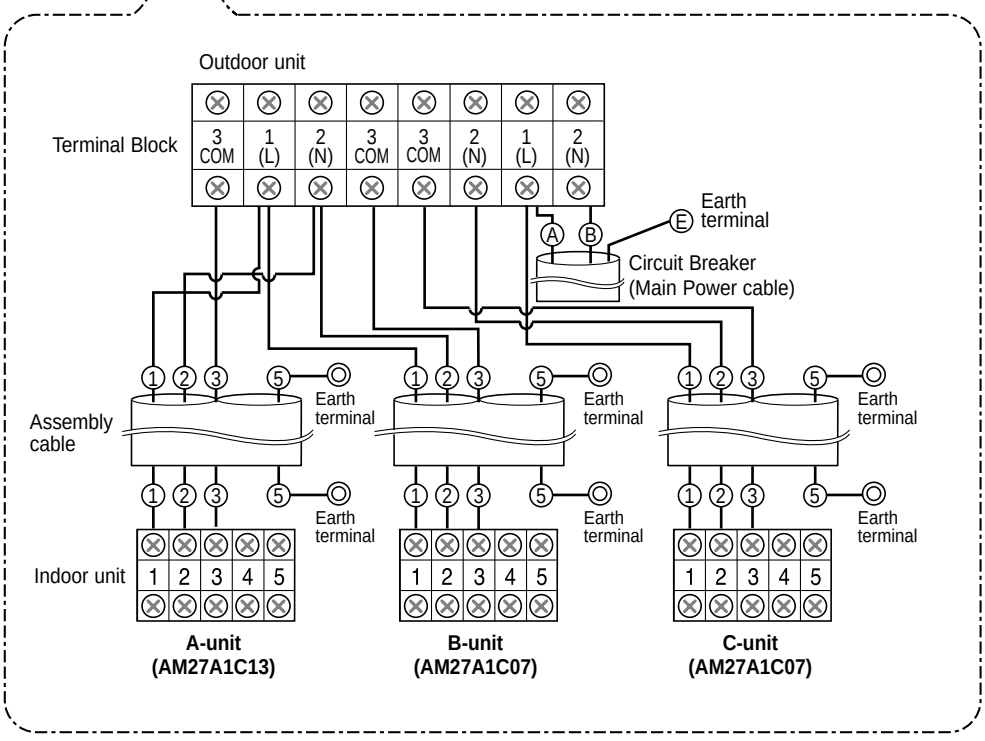
➢ Refer to the page 39 for further details on how to check that earthing is correct.

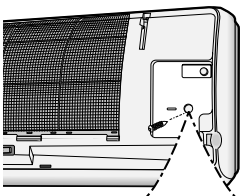
4 Replace the terminal board cover, carefully tightening the screw.

5 Connect the power cable to the auxiliary circuit breaker.

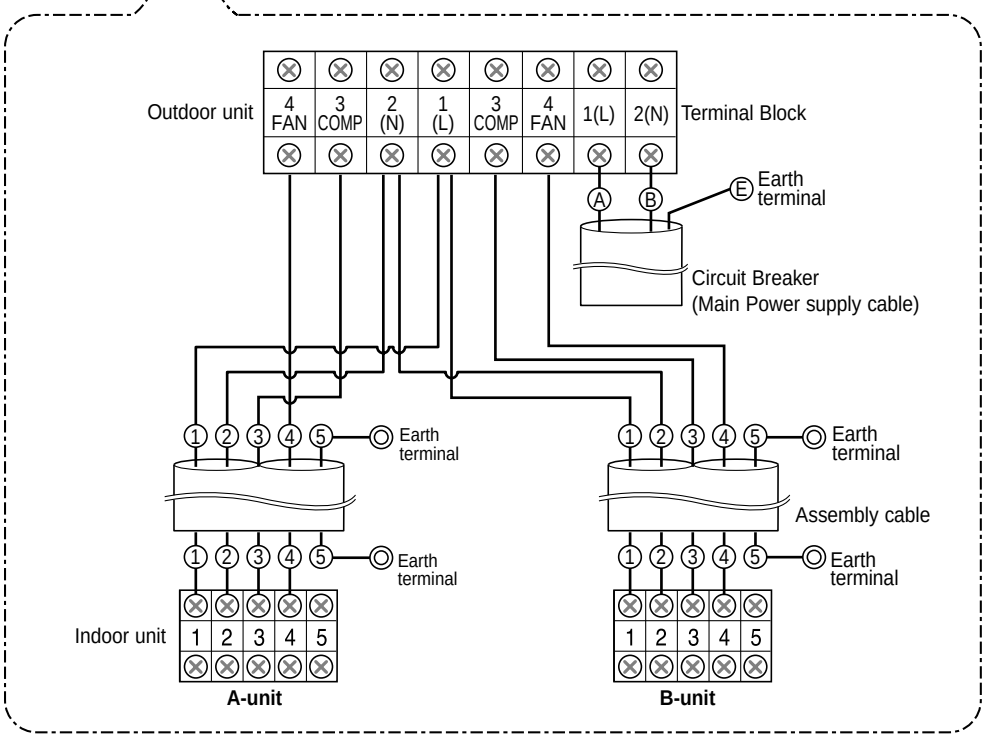


Indoor unit	Outdoor unit
AM27A1C07	UM27A1C3
AM27A1C13	

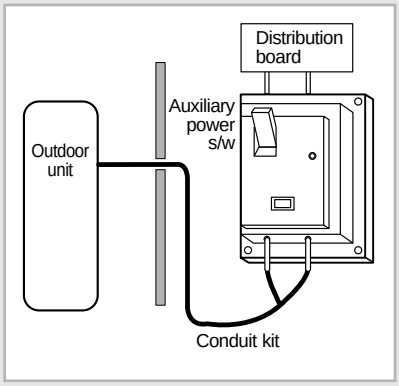




Indoor unit	Outdoor unit
AM18A1C09	UM18A1C2
AM26A1C13	UM26A1C2



Auxiliary Circuit Breaker



- ***Auxiliary circuit breaker should be installed near outdoor unit so that each access is possible.***
  Main/outdoor power supply cable are connected to upper/lower terminal of auxiliary circuit breaker.
- ***It is necessary that the conduit kit for power supply to the outdoor unit be installed between auxiliary power s/w and the outdoor unit.***
  (the conduit kit is optional)

Electrical Work

1 The supply voltage must be the same as the rated voltage of the air conditioner.

2 Prepare the power souce for exclusive use with the air conditioner.

3 Use 20 amperes time delay fuse or circuit breaker.

Model	UM18A1C2	UM26A1C2	UM27A1C3
Power supply	208-230V~, 60Hz Single phase		
Main power supply cable	AWG14	AWG14	AWG14
Assembly cable	AWG17	AWG17	AWG17
Operating current	8.0	11.8	12.2
Power consumption	1720	2580	2650

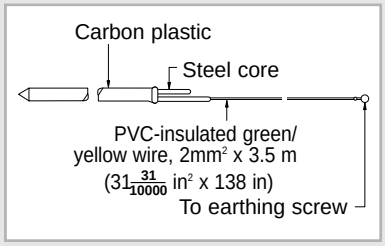
➢ When using the special NFB, use the NFB to bear the capacity of the air conditioner.

➢ Otherwise, the shot circuit in the NFB may be occur.

Checking Correct Earthing

If the power distribution circuit does not have an earth or the earth does not comply with specifications, an earthing electrode must be installed. The corresponding accessories are <u>not</u> supplied with the air conditioner.

1 Select an earthing electrode that complies with the specifications given in the illustration opposite.

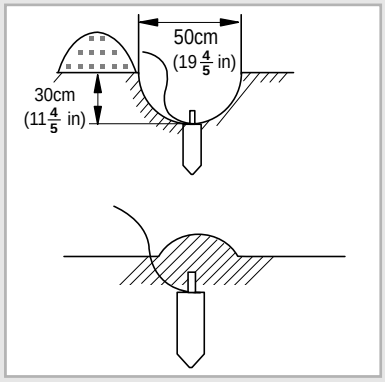


2 Determine a suitable location for the earthing electrode:

- ◆ In damp hard soil rather than loose sandy or gravel soil that has a higher earthing resistance
- ◆ Away from underground structures or facilities, such as gas pipes, water pipes, telephone lines and underground cables
- ◆ At least two metres away from a lightening conductor earthing electrode and its cable

➢ The earthing wire for the telephone line cannot be used to earth the air conditioner.

3 Dig a hole of the size indicated in the illustration opposite, drive the earthing electrode into position and cover the top of the electrode with the excavated soil.



4 Install a green/yellow insulated earthing wire (Ø1.6 mm/ 1/16 in, section 2 mm²/ 31/10000 in² or greater):

- ◆ If the earthing wire is too short, connect an extension lead, soldering the connection and wrapping it with insulating tape (do not bury the soldered connection)
- ◆ Secure the earthing wire in position with staples

➢ If the earthing electrode is installed in an area of heavy traffic, its wire must be connected securely.

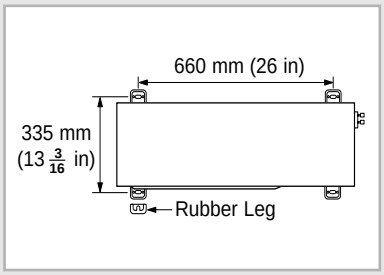
5 Carefully check the installation, by measuring the earthing resistance with an earthing resistance tester. If the resistance is above the required level, drive the earthing electrode deeper into the ground or increase the number of earthing electrodes.

6 Connect the earthing wire to the earthing screw on the air conditioner.

Fixing the Unit in Position

The outdoor unit must be installed on a rigid and stable base to avoid any increase in the noise level and vibration, particularly if the outdoor unit is to be installed close to a neighbour.

If it is to be installed in a location exposed to strong winds or at a height, the unit must be fixed to an appropriate support (wall or ground).



1	Position the outdoor unit so that the air flow is directed towards the outside, as indicated by the arrows on the top of the unit.
2	Attach the outdoor unit to the appropriate support using anchor bolts.
3	If the outdoor unit is exposed to strong winds, install shield plates around the outdoor unit, so that the fan can operate correctly.

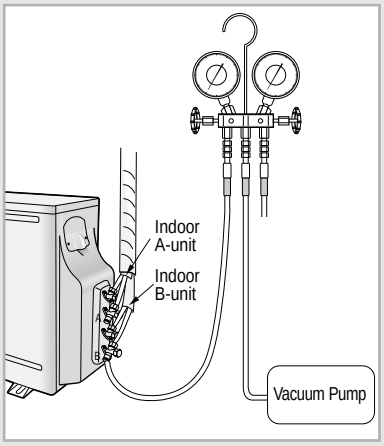
❋ Certainly fix up its rubber leg, in order to prevent its vibration and noise.

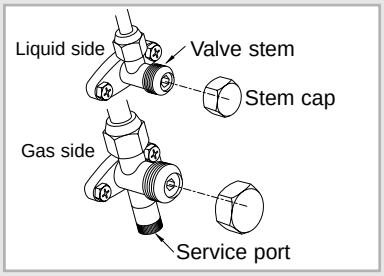
Air purging

CAUTION

The air in the indoor unit and in the pipe must be purged. If air remains in the refrigeration pipes, it will affect the compressor, reduce to cooling capacity and could lead to a malfunction. Refrigerant for air purging is not charged in the outdoor unit. Use Vacuum Pump as shown at the right figure. Each unit must be purged in turn.

1	Check the piping connections.
2	Connect the charging hose of low pressure side of manifold gauge to the packed valve having a service port (3/8″ or 1/2″ Packed valve) as shown at the right figure.
3	Open the valve of the low pressure side of manifold gauge counter clockwise.
4	Purge the air from the system using vacuum pump for about 10 minutes. - Close the valve of the low pressure side of manifold gauge clockwise. - Remove the hose of the low pressure side of manifold gauge.
5	Set valve cork of both liquid side and gas side of packed valve to the open position.
6	Mount the valve stem nuts to the 2-way and 3-way valve. And mount the service port cap to 3-way valve.
7	Check for gas leakage. - At this time, especially check for gas leakage from the 3-way valve's stem nuts, and from the service port cap.





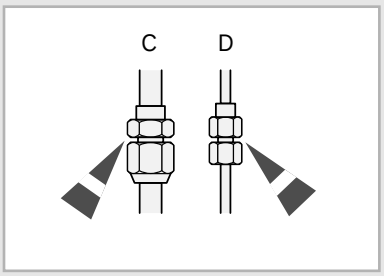
Refrigerant refill

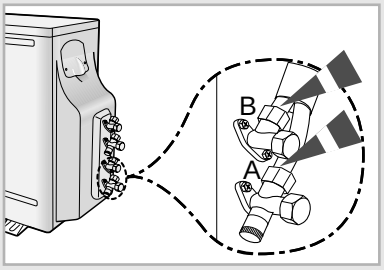
If connecting pipe of more than 10 metres is installed, additional refrigerant should be charged by extra metre. You don't have to charge additional refrigerant up to 10 metres of connecting pipe.

1	Remove the valve stem cap and service port of 3-way valve.
2	Connect the charging hose of low pressure side of manifold gauge to the packed valve having a charging port (3/8″ or 1/2″ Packed valve).
3	Operate the unit at the cooling mode.
4	Slowly open the valve of the low pressure side of manifode gauge counter-clockwise until the low pressure of manifold gauge indicates 4.8 to 5.5kg/cm^2 (68 to 78 PSI) at the high cool operation (1-unit operation) and the standard temperature of indoor 26.7°C (80°F) and outdoor 35°C (95°F). It is recommend that refrigerant should be slowly put in. If the refrigerant is put in too quickly, compressor will be damaged.
5	Stop operation of the air conditioner.
6	Disconnect the charge hose of manifold gauge.
7	Close the cap of each valve.

Formulas A-unit : 10g x (L_a - 10) / m (L_a : the length of A-unit's pipe)
B-unit : 10g x (L_b - 10) / m (L_b : the length of B-unit's pipe)

Performing Leak Tests

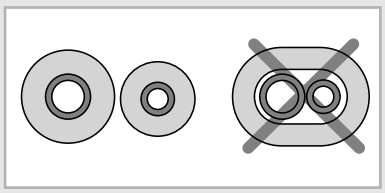


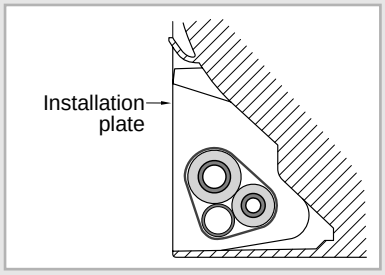


Before completing the installation (insulation of the cables, hose and piping and fixing of the indoor unit to the installation plate), you must check that there are no gas leaks.

To check for gas leaks on the...	Then, using a leak detector, check the...
Indoor unit	Flare nuts at the end of sections C and D.
Outdoor unit	Valves on sections A and B.

Placing the Indoor Unit in Position





Once you have checked that there are no leaks in the system, you can insulate the piping, hose and cables and place the indoor unit on the installation plate.

1	To avoid condensation problems, place heat-resistant polyethylene foam separately around each refrigerant pipe in the lower part of the indoor unit.
2	Wind insulating tape around the pipes and drain hose.
3	Place the resulting bundle carefully in the lower part of the indoor unit, making sure that it does not jut out from the rear of the indoor unit.
4	Hook the indoor unit on to the installation plate and move the unit to the right and left until you are sure that it is securely in place.
5	Finish wrapping insulating tape around the rest of the piping leading to the outdoor unit.
6	Using clamps (optionally supplied), attach the piping to the wall wherever possible.

Checking and Testing Operations

To complete the installation, perform the following checks and tests to ensure that the air conditioner is operating correctly.

1 Review all the following elements in the installation:
- Installation site strength
- Piping connection tightness to detect any gas leakages
- Connection wiring
- Heat-resistant insulation of the piping
- Drainage
- Earthing wire connection
- Correct operations (follow the steps below)

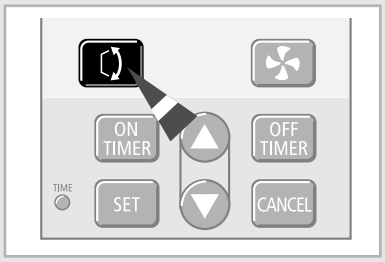
2 Press the On/Off button.

Result: ◆ The indicator lights on the indoor unit flash at half-second intervals.
◆ While the indoor unit opens, the indoor unit fan runs to start.

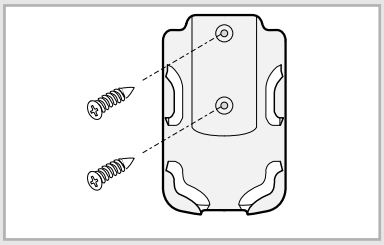
3 Press the TURBO button.

Result: The outdoor unit operates in cooling mode as starts.

4 Air flow direction — Press the button one or more times to set the blades to the 30° or 90° positions.



Installing the Remote Control Holder



The remote control is supplied with a plastic holder that can be fitted to the wall to hold the remote control when it is not being used.

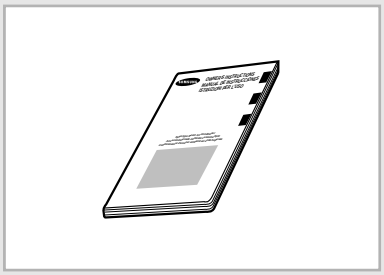
Choose a position where:

- ***The signal from the remote control will not be blocked (by a curtain for example)***
- ***The remote control is not exposed to direct sunlight or heat***
- ***The remote control is at least one metre away from a television or stereo system to avoid generating any parasites***

To attach the holder to the wall, proceed as follows.

1	With a pencil, mark the positions of the two holes on the wall where the holder is to be installed.
2	Drill the two holes and insert plugs as required for the type of wall on which the holder is being installed.
3	Screw the holder into position. Result: The owner can now slide the remote control in and out of the holder as required.

Explaining Operations to the Owner



Before leaving the premises on which you have installed the air conditioner, you should explain the following operations to the owner, making reference to the appropriate pages in the owner's instruction booklet.

1	How to start and stop the air conditioner.
2	How to select the operating mode and adjust the temperature and fan settings.
3	How to adjust the air flow direction.
4	How to set the timers.
5	How to remove and clean the filters.

Once the owner is happy with the basic operations, hand over the owner's instruction booklet and this installation manual for storage in a handy and safe place.

Memo

THIS AIR CONDITIONER IS MANUFACTURED BY:
ESTE AIRE ACONDICIONADO HA SIDO FABRICADO POR:
CE CLIMATISEUR EST FABRIQUE PAR:

SAMSUNG ELECTRONICS

Printed in Korea